

**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Yucca Mountain Site Characterization Office  
P.O. Box 98608  
Las Vegas, NV 89193-8608

QA: L

**AUG 23 1994**

L. Dale Foust  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
TRW Environmental Safety Systems, Inc.  
Bank of America Center, Suite P-110  
101 Convention Center Drive  
Las Vegas, NV 89109

EVALUATION OF RESPONSE TO CORRECTIVE ACTION REQUEST (CAR)  
YM-94-054 RESULTING FROM U.S. DEPARTMENT OF ENERGY/HEADQUARTERS  
QUALITY ASSURANCE DIVISION'S AUDIT HQ-94-02 OF THE CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING  
CONTRACTOR (SCPB: N/A)

The Yucca Mountain Quality Assurance Division staff has evaluated the response to CAR YM-94-054. The response has been determined to be satisfactory. Verification of completion of the corrective action will be performed after the effective date provided. Any extension to this date must be requested in writing, with appropriate justification, prior to the date. Please send a copy of extension requests to Deborah Sult, YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas, Nevada 89109.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Richard E. Powe at 794-7749.

Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-4781

Enclosure:  
CAR YM-94-054

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L. Dale Foust

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AUG 23 1994

cc w/encl:

T. A. Wood, HQ (RW-14) FORS

~~R. E. Johnson~~, NRC, Washington, DC

S. W. Zimmerman, NWPO, Carson City, NV

R. L. Robertson, M&O/TRW, Vienna, VA

R. P. Ruth, M&O/Duke, Las Vegas, NV

Richard Jiu, M&O/TRW, Las Vegas, NV

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV

D. G. Sult, YMQAD/QATSS, Las Vegas, NV

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THIS IS A RED STAMP

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RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
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**CORRECTIVE ACTION REQUEST**

|  |  |  |  |
|--|--|--|--|
| <sup>1</sup> Controlling Document<br>M&O QAP-3-5, Rev. 5, Development of Technical Documents   |  | <sup>2</sup> Related Report No.<br>HQ-94-02  |  |
| <sup>3</sup> Responsible Organization<br>CRWMS M&O   |  | <sup>4</sup> Discussed With<br>S. Bailey, R. Justice   |  |
| <sup>5</sup> Requirement:<br><br>Paragraph 5.2 Technical Document Preparation states in part:<br><br>B. Ensure that, as a minimum, the technical document includes the following:<br><br>4. "Identification of whether input data are of indeterminate quality... these indications will be identified and tracked in accordance with applicable line procedures and shall be classified as to be verified (TBV)."   |  |  |  |
| <sup>6</sup> Adverse Condition:<br><br>Technical Document was approved and issued without identifying a TBV.<br><br>Example: Seismic Design Inputs for the Exploratory Studies Facility at Yucca Mountain, BAB000000-01717-5705-0001, Rev. 1, dated May 20, 1994 identified that only a portion of the data were collected under Yucca Mountain Project Approved quality assurance programs and the computer programs used had not been verified and validated in accordance with CRWMS M&O approved procedures. However, no TBVs were identified. |  |  |  |
| <sup>8</sup> Does a significant condition adverse to quality exist? Yes ___ No <u>x</u><br>If Yes, Circle One: A B C D E   |  | <sup>10</sup> Does a stop work condition exist? Yes ___ No <u>x</u> ; If Yes - Attach copy of SWO<br>If Yes, Circle One: A B C |  |
| <sup>9</sup> Response Due Date: 20 working days from issuance  |  |  |  |
| <sup>11</sup> Required Actions: <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input checked="" type="checkbox"/> Root Cause Determination   |  |  |  |
| <sup>12</sup> Recommended Actions:<br><br>1. Revise the example document to reflect TBV.<br>2. Investigate to determine if other documents need to be revised to reflect TBVs.<br>3. Take action to preclude recurrence such as clarifying the procedure.  |  |  |  |
| <sup>7</sup> Initiator<br>R. E. Powe <i>R. E. Powe</i> Date 6/30/94  |  | <sup>14</sup> Issuance Approved by<br>QADD <i>[Signature]</i> Date 7-12-94   |  |
| <sup>15</sup> Response Accepted<br>QAR <i>R. E. Powe</i> Date 8/16/94  |  | <sup>16</sup> Response Accepted<br>QADD <i>[Signature]</i> Date 8-23-94  |  |
| <sup>17</sup> Amended Response Accepted<br>QAR Date  |  | <sup>18</sup> Amended Response Accepted<br>QADD Date   |  |
| <sup>19</sup> Corrective Actions Verified<br>QAR Date  |  | <sup>20</sup> Closure Approved by:<br>QADD Date  |  |

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

A. Remedial Action:

1. Revise the report, "Seismic Design Inputs for the Exploratory Studies Facility at Yucca Mountain" (BAB000000-01717-5705-0001, REV01) to indicate "to be verified" (TBV) values. (Richard Quittmeyer, Complete by 8/19/94)
2. Provide revised version of report to Document Control for controlled distribution. Provide Document Control with a list of persons to whom the current version of the report has been distributed and put them on controlled distribution. Rev 0 of the report was distributed using M&O QAP-3-12. Rev 1 of the report was first distributed using M&O QAP-3-12 and then made a controlled document. (Richard Quittmeyer, Complete by 8/19/94)

B. Extent of the Deficiency:

1. Examine other documents prepared according to M&O QAP-3-5 within the M&O to determine if TBV values have been properly annotated. Document the areas examined and the results of the examination. Any documents that need to be revised will be brought into compliance with the current revision of M&O QAP-3-5 (Richard Quittmeyer, to be completed by October 30, 1994).
2. Control of documents generated using M&O QAP-3-5 was examined in responding to CAR HQ-94-020.

C. Root Cause:

1. Clarification of condition: A technical report developed under M&O QAP-3-5 over a period of about one year was not in compliance with the version of the procedure in effect at the time the document was approved. During the period of document preparation, the procedure was modified several times. Changes in the procedure to require identification and tracking of "to be verified" input data and to require review by the QA location manager were not taken into account in the final document. The document was revised to include a review by the QA location manager and to include a statement that input data in the report were of indeterminate quality. Although the statement that the data used were of indeterminate quality was added, the results were not identified as "to be verified (TBV)" and entered into the TBV tracking system in accordance with applicable line procedures as required by M&O QAP-3-5. The document was prepared by the M&O Site Characterization (now Scientific Programs Integration) group. Self-study training by the document preparer and approver was inadequate.

In investigating the condition it was also discovered that M&O QAP-3-12 was being used to transmit the report to the design group but that information copies were also being provided to personnel requesting them. This resulted in out-dated versions of the document being in the possession of some personnel after the document was revised. QAP-3-5, therefore, does not provide sufficient direction as to how technical documents should be distributed and controlled. (Richard Quittmeyer, complete)

8/10/94 LV.SC.CTS. 8/94-096

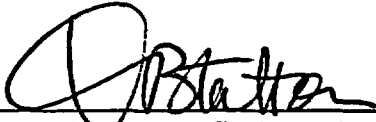
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<sup>B</sup> CAR NO. YM-94-054  
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D. Preclude Recurrence:

1. Re-train document preparers and approvers in the M&O Scientific Programs Integration group to current version of M&O QAP-3-5. (Richard Quittmeyer, to be completed by 8/19/94)
2. Develop and require classroom training for document preparers within the Scientific Programs Integration group who are working according to M&O QAP-3-5. (Richard Quittmeyer, to be completed by 10/30/94)
3. M&O QAP-3-5 has been revised to require that documents subject to baseline change control be submitted to the Baseline Change Control Board (BCCB) in accordance with QAP-3-4 and that other documents be submitted to the Document Control Center in accordance with QAP-6-1. (Robert Bahney, complete, 6/23/94)



Responsible Manager, C. Thomas Statton

8/10/94

Date